

CUMINUM CYMINUM L USES IN DYSMENORRHOEA: A REVIEW ARTICLEDr. Bindu Ahlawat*¹ and Dr. Jagdish Mohan Onkar²¹PG Scholar Dept of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Tanta University, Sriganganagar -335001, India.²Associate Professor Dept of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Tanta University, Sriganganagar -335001, India.***Corresponding Author: Dr. Bindu Ahlawat**

PG Scholar Dept of Dravyaguna, Sriganganagar College of Ayurvedic Science and Hospital, Tanta University, Sriganganagar - 335001, India.

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ABSTRACT

The demand of personalized medication has grown to leaps and bounds since last few years. Ayurveda, the oldest system of medicine, emphasized on such personalized medication by analyzing the personal health status of individual through different assessment criteria. *Cuminum cyminum L.* called as Jeeraka in Sanskrit and Jeera in Hindi, is one of the herb which was used since many centuries for various ailments. Traditionally the herb is well-known for its action in various alimentary diseases like, indigestion, diarrhea, gynecological diseases, etc. This herb is also screened for various pharmacological activities like antibacterial, anticancer, antiulcer and others. The condition of painful menstruation is affecting more than half of young adolescent girl population. The current article is an effort to establish the mode of action of *Cuminum cyminum L.* in terms of Ayurveda pathogenesis as well as contemporary science. Various pathogenic pathways of Dysmenorrhoea according to Ayurveda are discussed with conclusion of using Jeeraka in dysmenorrhoea under which particular pathogenesis. Such comparison will help to establish personalized medicine for other diseases and this may be a novel approach towards same.

KEYWORDS: *Cuminum cyminum L.*, Jeeraka, Individualized/Personalized medicine, Dysmenorrhoea, Menstrual Pain.

INTRODUCTION

The present status of chronic diseases in relation with availability of their treatment-approaches is observed to be very limited. Despite of having many technological developments in current science, the exact cure of these diseases is not achieved. Moreover various patterns of symptomatic relief of diseases persist in the existing scenario. As a reflection, gradually, the world is taking interest in the culture of Individualized/Personalized Medicine and trying to get relief from many diseases. The Ayurveda claimed Individualized/Personalized Medicine is a science, based on the concepts for analyzing the various parameters mentioned in literature. Eventually, the classical Ayurveda lies in implementing these selective methods and providing proper remedy in proper form to the needy. It will be always encouraged and appreciated that the selection of herb must have some evidence based background to convince the new generation. However, it doesn't always mean that the selected herb must have or must not have the proved backup for claimed actions. So far the contemporary way of Herbal Research is concerned, it is found to be still in infancy to validate Ayurvedic claims with respect to the concepts of Ayurveda. In Ayurveda, the knowledge

regarding personified-study is mentioned under the concept 'Amshamsha Vikalpna which covers a broad range of human as well as drug study. The human differential factors are achieved through Vyadhi Ghataka (factors responsible for pathogenesis), where as drug selection is achieved by Rasapanchaka (Ayurvedic conceptual composition of herb). Ayurveda the science of life have greatness in studying pathogenesis and selection of remedy accordingly. At primary level, with an example of Dysmenorrhoea, this theme is attempted by evaluating various pathological conditions of Ayurveda and contemporary sciences supported by the pharmacological claims of *Cuminum cyminum L.* Glimpse of Dysmenorrhoea

Prevalence

Dysmenorrhoea is one of pathological condition which is generally ignored by patients and practically unresolved completely by physicians (except some pathology). It is observed through various published paper that the dysmenorrhoeal condition is present throughout the world. According to a survey, an average of 68% girls has dysmenorrhoea and alarming one in eight girls reported absenteeism at college/school because of menstrual symptoms.

Ayurvedic View

The condition of dysmenorrhoea is explained in Ayurvedic literature in terms of 'Kastartava / Kukshi Shoola, Vatala Yoni, Udavartini Yonivyapad (Ayurvedic names of disease under Striroga-Gynecology). The causative factors, pathogenesis, symptoms and treatment are also described in Ayurveda and based on that, the increased 'Vata' type of humours in the body is responsible for disease creation. The various Ayurvedic causative factors which manifest into dysmenorrhoea are inappropriate food habits, inappropriate lifestyle, infectious menstruation, vitiated reproductive physiology, abnormal ovarian function, inappropriate sitting-sleeping habits, excessive use of liquid foods and many nonetiological factors. All these factors creates imbalance in humors (Vata-Pitta-Kapha) of a normal individual through specific mode of vitiations. This vitiation may occur by individual-increase of body-humors (Vata-Pitta-Kapha) or their combinations. The modes of vitiations are called as Samprapti or Dosh-Dushya Sammurchhana (pathogenesis). This pathogenesis of Kashtartava can be summarized under six major patterns. The aim of management should be by equilibrating vitiated Doshas, especially Vata (as it is main causative factor of all Yonivyapadas) or managing Avrita Apana Vayu (pathology of one of the type of Vata humor) through Agnideepaka (Improving appetite), Grahi (controlling of excessive outflow), Vata Anulomana (normalizing any type of abnormal flow) and Pakvashaya Shuddhikara (purification of large intestine) methods.

Contemporary Medicine The various causes of Dysmenorrhoea described under contemporary system of medicine are like environmental factors causing nervous tension, general ill health, faulty outlook, hormonal imbalance, psychogenic cause, imbalance of autonomic nervous system, intrauterine contraceptive device, stenosis at internal Os, unequal development of mullerian ducts, inappropriate low of polarity, retroverted uterus, uterine hypoplasia, vasopressin and prostaglandins. Ayurvedic Individualized / Personalized Medicine Documentation Ayurveda advocates that selection of any medicine should be purely based on the Individualized / Personalized features of sufferings. According to Charaka Samhita a best physician should know the science of administration of drugs with due reference to climate and season, and who applies it only after examining each and every patient individually. Moreover while commenting on the role of diet, Charaka recommends planning of opposite properties of vitiated Doshas in the form of diet to maintain the health. Habitual intake of balanced diet with all Rasas (tastes) in proportionate quantity is recommended for equilibrium of doshas. The Ayurveda system does not stress on the naming of the disease but a proper diagnosis related with the vitiation is more important than the labeling of the disease. It explains that the diseases are innumerable being divided on the basis of trouble, color, etiology,

site, symptoms and name. However in other cases general principle may be followed.

Ultimately, applying knowledge and common sense one should plan the management. Moreover, the treatment should be continued till the patient regains health. While describing the state of normalcy Ayurveda screened many points to identify healthy individual. Some of these parameters like person having good built, has balanced proportion of muscles, compactness of the body, possess very strong sensory and motor systems, etc. Also healthy individual can with stand hunger, thirst, the heat of the sun, cold and physical exercise. They can digest and assimilate the food properly.

The Samprapti Ghataka (factors responsible for Dysmenorrhoea pathogenesis)

No Desired action on Dysmenorrhoea Actions of Jeeraka Classical interpretation of Jeeraka actions

1. Vata Pradhana Tridosha Vata-Kaphahara The Drug will specifically applicable only in Vata-Kapha dominant Kashtartava (Dysmenorrhoea) condition.
2. Rasa, Rakta, Artava Pachana The drug will not nourish the Rasa-Rakta Dhatu but will improve its functional capacity. It will be utilized for limited period till the condition gets normalize.
3. Jatharagni, Dhatvagni Mandya Deepana, Pachana, Jarana, Chhardi, Adhmana, Atisarahara, Grahani, Ajeerna Through the Main Agni (Jatharagni), Jeeraka will start showing its action. Eradication of root cause in the form of malfunction of Mahasrotasa it shows its results. Normalizing metabolism may be the main effect.
4. Rasa, Rakta and Artavavaha Srotasa Garbhashaya Vishodhana. The drug shows action specifically on Uterus by removing the metabolic toxicity. It helps in improving regular menstrual blood flow, improvement in menstruation complications. Improving the Dhatvagni of Rasa-Rakta Dhatu is the main area of the drug.
5. Sanga and Vimargagamana Katu, Tikta, Ushna, Pachana, Ushna Veerya, Katu Rasa and Pachana Karma responsible to break and obstructive pathology for disease formation. Hence drug may be useful in Santarpana Janya Karstartava.
6. Amapakvashaya Katu, Tikta, Ushna These references shows the main action is on Mahasrotasa (Annavaha). Which facilitate in eradication of Ama (endotoxins) and formation of new, sustainable, purified Dhatus which later helps in improving the disease condition.
7. Garbhashaya Garbhashaya Vishodhana By purifying and cleansing the uterus (Garbhashaya Vishodhana) it helps in creation of ideal platform for normal menstruation, development of good progeny.

DISCUSSION AND CONCLUSION

There are many herbs that are directly or indirectly indicated in the menstrual condition, especially Kashtartava (Dysmenorrhoea). Jeeraka i.e. *Cuminum*

cuminum L. is one of the popular herbs used since many centuries for various ailments as mentioned in Ayurveda literature. Based on the properties of the herbs, it shows its action through the pacifying many abnormal conditions of Gastro-intestinal tract. This GIT is considered as Mahasrotasa (Major channel) in Ayurveda and its dysfunction leads to many diseases. The various indications of Jeeraka like Ajeerna, Deepana, Pachana, Gulma, Garhani, Atisaara, Adhmana, Atopa, etc directly establish it as a drug of choice in GIT associated menstrual disease. By this way it not only pacifies the symptoms of disease but also rectify the root cause of disease. Apart from this it has direct action as Garbhashaya Vishodhana which leads to clean the female reproductive system. Having targeted action on affected part as well as capacity to eradicate the disease from its root makes Jeeraka as one of the best choice of drug. While planning Jeeraka, one should observe its utility for a specific period. Being Ushna, Ruksha, Laghu, Katu, Tikta, it may harm and create Dhatukshaya by various manner. Hence though it is good herb for Kashtartava, it should be administered only till the relief and should not be used excessively. The pharmacological screening for Sperm Function and antitesticular activity is an additional proof for its side-effects in long term use. By studying the Ayurvedic pathology Jeeraka can be the best drug of choice in Pathology 2, better in pathology 4, good drug of choice in pathology 5 & 3. It should not be recommended in pathology 1 where Dhatukshaya is a responsible cause for disease. It also may not show its effects in pathology 6 where psychosomatic involvements are observed. The modern pharmacological screening can be correlated but can't be claimed to validate the Ayurvedic activities. Ayurvedic action of Jeeraka on menstrual disorder through GIT is a best example to discard the theory of correlation among two systems. The entire pathology of Dysmenorrhoea is least concerned with GIT activity (exact opposite to Ayurveda). The screening strongly correlate the analgesic, anti-inflammatory, anti-microbial and Galactogogues activity. Overall both the sciences are helpful to know the nature of the disease and drug which help the researchers to think and plan a treatment for the betterment of society.

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